

**What is claimed is:**

**[Claim 1]** 1. An apparatus for a setting unit to configure ID to at least two displays, comprising:

at least a first switch and a second switch, the first switch comprising an input terminal, an output terminal and a control terminal, and the second switch comprising an input terminal and a control terminal, wherein the input terminal of the first switch is electrically coupled to a communication interface transmission terminal of the setting unit, and the output terminal of the first switch is electrically coupled to the input terminal of the second switch, wherein the control terminals of the first and second switches are adapted for receiving an control signal from the displays, and are turned on or turned off after said switch receives signal sent from the control terminal of the display;

first transmission line, electrically coupled to the input terminal of the first switch, the receiving terminals of the display and a transmission terminal of the setting unit;

second transmission lines, electrically coupled to the output terminal of the first switch and the input terminal of the second switch and receiving terminals of the display; and

third transmission lines, electrically coupled to the transmission terminals of the displays and a communication interface receiving terminal of the setting unit.

**[Claim 2]** 2. The apparatus for configuring a display ID of claim 1, wherein the setting unit is a computer.

**[Claim 3]** 3. The apparatus for configuring a display ID of claim 1, wherein the communication interface receiving terminal and the transmission terminal of the display are a RS232 receiving terminal and a RS232 transmission terminal, respectively.

**[Claim 4]** 4. The apparatus for configuring a display ID of claim 1, wherein the communication interface of the setting unit are a RS232 receiving terminal and a RS232 transmission terminal, respectively.

**[Claim 5]** 5. A system for configuring a display ID, comprising:

a setting unit, comprising a transmission terminal and a receiving terminal;

at least two displays, each display comprising a control terminal, a microprocessor and a communication interface having a transmission terminal and a receiving terminal, wherein the microprocessor is electrically coupled to the transmission terminal, the receiving terminal, the control terminal, and a memory;

at least two switches, for accepting a control signal from the displays, and being turned on or turned off by receiving the control signal;

first transmission lines, electrically coupled to the input terminal of the first switch, the receiving terminals of the display and a transmission terminal of the setting unit;

second transmission lines, electrically coupled to the output terminal of the first switch and the input terminal of the second switch and receiving terminals of the display; and

third transmission lines, electrically coupled to the transmission terminals of the displays and a receiving terminal of the setting unit.

**[Claim 6]** 6. The system for configuring a display ID of claim 5, wherein the switches comprises at least a first switch and a second switch, wherein the first and second switches respectively comprises an input terminal, an output terminal and a control terminal, wherein the input terminal of the first switch is electrically coupled to a transmission terminal of the setting unit and the output terminal of the first switch is electrically coupled to the input terminal of the second switch, and wherein the control terminals are adapted to accept an control signal from the display to turn on or off the first and second switches upon receiving signal sent from the control terminals of the displays.

**[Claim 7]** 7. The system for configuring a display ID of claim 5, wherein the setting unit is a computer.

**[Claim 8]** 8. The system for configuring a display ID of claim 5, wherein the communication interface of each display are a RS232.

**[Claim 9]** 9. The system for configuring a display ID of claim 5, wherein the communication interface of the setting unit is a RS232.

[Claim 10] 10. A system for configuring a display ID, comprising:

    a setting unit;  
    a plurality of displays, electrically coupled to the setting unit; and  
    a plurality of switches, configured in between the setting unit and the displays, each of the switches corresponding to one of the displays, and being turned on or turned off by its corresponding display, wherein when the setting unit issues a setting ID instruction, each of the switches is turned on by its corresponding display, and then the setting unit issues a plurality of identification configuration instructions, and wherein by sequentially turning off each of the switches, the corresponding ID of the corresponding display is configured by each of the ID configuration instructions.

[Claim 11] 11. The system for configuring a display ID of claim 10, wherein when the setting unit issues the ID configuration instructions, a subsequent ID configuration instruction is issued based on a reply signal sent by each of the configured displays.

[Claim 12] 12. The system for configuring a display ID of claim 10, wherein each of the displays is not electrically coupled to the setting unit until the ID configuration of a previous display is completed and a switch corresponding to the previous display had been turned off, and the setting unit issues the ID configuration instruction corresponding to the subsequent display only after a reply signal for indicating the configuration has been completed is received by the setting unit, so as to configure the ID for the subsequent display.

[Claim 13] 13. The system for configuring a display ID of claim 10, wherein the setting unit comprises a transmission terminal and a receiving terminal, which are electrically coupled to a receiving terminal and a transmission terminal of a microprocessor inside each of the displays via a first transmission lines and a second transmission lines, respectively, and the switches are configured on the first transmission lines.

[Claim 14] 14. The system for configuring a display ID of claim 10, wherein among the displays, the receiving terminal and the transmission terminal of a first display are electrically coupled to the transmission terminal

and the receiving terminal of the setting unit via a first transmission lines and a second transmission lines, respectively, and the receiving terminal of a second display is electrically coupled to the transmission terminal of the setting unit via the first switching unit corresponding to the first display.

[Claim 15] 15. The system for configuring a display ID of claim 10, wherein each of the displays comprises a memory for storing the ID.

[Claim 16] 16. A method for configuring a display ID using an apparatus, the apparatus comprising at least a setting unit, a first display, a second display, a first switch and a second switch, the first display is electrically coupled to the setting unit, and the second display is electrically coupled to the setting unit via the first switch, and the method comprising:

turning on all switches;

all microprocessors receiving setting ID instruction from the setting unit;

all displays changing to ID setting mode and controlling all switches turn off;

first display receiving first ID information from the setting unit;

first ID microprocessor storing the ID in a memory of the first display;

first microprocessor quitting the ID setting mode and backing to normal operation mode;

second display receiving second ID information from the setting unit;

second ID microprocessor storing the ID in a memory of the second display.

[Claim 17] 17. A method of claim 16, wherein after the first microprocessor quitting the ID setting mode and backing to normal operation mode, the first microprocessor issuing a signal to the setting unit.